

What is claimed is:

1. A method for high velocity hydroforming a vehicle frame member, said method comprising the steps of:

- a. providing a die having an internal die cavity;
- b. providing a tubular member;
- c. positioning said tubular member within said die cavity;
- d. filling said tubular member with a fluid; and
- e. creating a shock wave within said fluid to expand said tubular member to conform to the shape of the die cavity, thereby forming a vehicle frame member.

2. The method of Claim 1 further including the step of feeding an end of said tubular member into said die cavity during the expansion of said tubular member.

3. The method of Claim 1, wherein said shock wave is created by discharging an electric arc within said fluid.

4. The method of Claim 1, wherein said shock wave is created by rapidly advancing a piston within a fluid cylinder in communication with said fluid.

5. The method of Claim 4, wherein said piston is advanced by an electromagnetic field.

6. A method of forming a vehicle frame side rail comprising the steps of:

- a. providing a die having an internal die cavity;
- b. providing a tubular member having an end;
- c. positioning said tubular member within said die cavity;
- d. filling said tubular member with a fluid;

e. discharging an electric arc within said fluid to create a shock wave within said fluid, thereby expanding said tubular member to conform to the shape of the die cavity; and

f. feeding said end of said tubular member into said die cavity during the  
5 expansion of said tubular member to maintain a generally constant wall thickness.